

## INTERNATIONAL SEARCH REPORT

Int. Application No.  
US 03/19532A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C09K11/00 H01L51/30

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C09K H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 127 693 A (CHANG EN-CHUNG ET AL) 3 October 2000 (2000-10-03) column 2, line 65 - column 4, line 9 figures I, II	1-19, 24-27
X	US 6 368 732 B1 (JIN SUNG-HO ET AL) 9 April 2002 (2002-04-09) column 2, line 66 - column 3, line 4 figure I column 7, line 25 - line 30	1-19, 24-27
X	WO 98 41065 A (UNIV OHIO STATE RES FOUND) 17 September 1998 (1998-09-17) page 1, line 11 - line 15 page 3, line 21 - line 22 claims 1,3	1-19, 24-27
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

8 September 2003

Date of mailing of the international search report

10 7. 11. 03

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

Inter-  
national Application No  
US 03/19532

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 328 809 A (BURN PAUL L ET AL) 12 July 1994 (1994-07-12) figures 1,39 column 2, line 35 - line 42 column 4, line 16 - line 23 -----	1-19, 24-27

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 03/19532

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-19, 24-27

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-19,24-27

A photoluminescent material comprising a host material and a color tunable photoluminescent dye and an article made of this material.

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2. claims: 20,21

A photoluminescent dye of the given formula.

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3. claims: 22,23

A method of determining a degree of mechanical deformation, a temperature change, degree of aging, a pressure change, degree of exposure to a chemical compound on an article containing a color tunable photoluminescent dye by means of comparing the emission spectra before and after one of the above listed treatments.

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## INTERNATIONAL SEARCH REPORT

Inte

al Application No

Information on patent family members

US 03/19532

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6127693	A	03-10-2000	NONE	
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US 5328809	A	12-07-1994	AT 135382 T AT 179434 T AU 8436091 A AU 8501691 A CA 2089481 A1 CA 2089482 A1 DE 69117957 D1 DE 69117957 T2 DE 69131180 D1 DE 69131180 T2 DK 544795 T3 EP 0544771 A1 EP 0544795 A1 ES 2134780 T3 WO 9203490 A1 WO 9203491 A1 GR 3030441 T3 HK 24497 A HK 1010381 A1 JP 3242648 B2 JP 6500813 T JP 6501035 T JP 3336314 B2 JP 2002138133 A US 5425125 A US 5512654 A US 5672678 A US 5401827 A	15-03-1996 15-05-1999 17-03-1992 17-03-1992 25-02-1992 25-02-1992 18-04-1996 14-11-1996 02-06-1999 19-08-1999 08-11-1999 09-06-1993 09-06-1993 16-10-1999 05-03-1992 05-03-1992 30-09-1999 27-02-1997 11-08-2000 25-12-2001 27-01-1994 27-01-1994 21-10-2002 14-05-2002 13-06-1995 30-04-1996 30-09-1997 28-03-1995